NOTES AND NEWS.

DR. OSKAR LOEW of the University of Munich has been called to the University of Tokio as professor of agricultural chemistry.

REV. C. F. MAXWELL, of Dublin, Texas, is engaged on drawings of the oaks of western Texas which he expects to publish next summer after the style of Kellogg's West American Oaks.

THE PAPERS AND DISCUSSIONS before the Society for the Promotion of Agricultural Science at its Madison meeting occupy the larger part of the Aug.-Sept. number of Agricultural Science.

DR. GEORG DRAGENDORFF, author of the well known work on "Plant Analysis," and professor of pharmacy in the University of Dorpat, Russia, has resigned his position and removed to Bern, Switzerland.

PROF. DR. P. SORAUER resigned, October first, the directorship of the Experiment Station for Vegetable Physiology at Proskau, Germany, and Dr. Rudolf Aderhold of Geisenheim has been appointed his successor.

DR. GEO. E. STONE, who has been studying abroad, especially in Prof. Pfeffer's laboratory at Leipzig, has been appointed assistant professor of botany in the Massachusetts Agricultural College at Amherst. He will give particular attention to physiological botany.

THE OBJECT AND METHODS of seed investigation and the establishment of seed control stations are carefully and ably treated by Dr. Oscar Burchard of Hamburg, Germany, in the *Experiment Station Record* (IV, 793–801, 882–900). The article contains very full information, and is well illustrated.

THE SIXTH ANNUAL REPORT (1892–3) of the Scientific Station for Brewing in Chicago, shows a remarkably large amount of work accomplished. In the bacteriological department, in charge of Mr. A. Lasché, examination was made of 1059 samples of yeast, 1105 of beer, and 280 of water. The results are instructive to others beside those engaged in the brewing industry.

IN A RECENT NUMBER of *Studies from the biological laboratory* of Johns Hopkins University (vol. v, Oct. 1893) Dr. J. P. Lotsy presents some facts regarding the structure of cypress knees, claiming to have found fungous spores present and occasional mycelium, and Mr. B. W. Barton describes and illustrates the origin and development of the stichidia and tetrasporangia in Dasya elegans.

THE FOLLOWING NEW BOOKS have been announced for early publication: "Handbook of systematic botany," by E. Warming, translated from the Swedish by M. C. Potter, from the press of Swan Sonnenschein & Co.; "Practical physiology of plants," by F. Darwin and E. H. Acton, from the Cambridge University press; "A student's textbook on botany," by Sidney H. Vines, copiously illustrated.

IN THE ANNUAL report of the Vermont Experiment Station for 1892 is some interesting matter upon plant diseases, especially of the potato, oats, apple, cucumber and lettuce, by L. R. Jones. In the simi-

lar report of the Wisconsin Station for 1892 is an illustrated article by F. H. King on the natural distribution of roots in field soils, containing important additions to our knowledge of the rooting habits of plants, and articles by E. S. Goff upon use of fungicides, and the deterioration of the natural vigor of strawberry plants through the continued action of spot disease (Ramularia Tulasnei). The latter points out a danger to the successful growing of crops that has not yet been sufficiently well recognized.

AMONG RECENT station bulletins are the following having botanical interest: "Colorado weeds," by C. S. Crandall (Colo. no. 23). Beside some general observations nine kinds of weeds are described and figured; three of the kinds are illustrated both from pen sketches and photographs, and it is very noticeable that the former method is adapted to show more detail of structure, and the latter to better present the habit of the plant. "Loco and larkspur," by David O'Brine (Colo. no. 25), is an interesting subject,which receives preliminary treatment from the chemist's and physiologist's standpoint, with the tentative conclusion that those species of Astragalus and related plants called loco weeds are not responsible for the loco disease. L. H. Pammel and F. C. Stewart (Iowa no. 21), write, the former upon bacteria connected with the dairy, and the latter upon the impurities of clover seed.

MR. HENRY L. CLARKE, of the University of Chicago, in the *American Naturalist* for September, publishes a paper on "The philosophy of flower seasons", which suggests a very interesting field of research. The field is suggested in somewhat shadowy outline, and the illustrations used are meant to be of the most general kind. After passing in review the large groups as represented in the "Manual range", and pointing out their season of blooming, the general deduction is made that "from early spring to late autumn there is a progression in the general character of the flower-groups, from the lower to the higher, successive groups succeeding each other in time, parallel groups coming synchronously." Various modifying conditions are mentioned, such as the necessities of pollination.

THE DATES of publication of the parts of Torrey & Gray's "Flora of North America" and Hooker & Arnott's "Botany of Beechey's Voyage" have been published by Mr. B. Daydon Jackson in *Journal of Botany* (October) as follows: *Flora of North America*, Vol. I, Part 1 (pp 1–184), July, 1838; Part 2 (pp. 185–360), October, 1838; Part 3 (pp. 361–544), June, 1840; Part 4 (pp. 545–698), and Errata, June, 1840: *Botany of Beechey's Voyage*, Part 1 (pp. 1–48), 1830; Parts 2 and 3 (pp. 49–144), 1832; Part 4 (pp. 145–192), 1833; Part 5 (pp. 193–240), 1836; Part 6 (pp. 241–288), no indication of date; Parts 7 and 8 (pp. 289–384), 1840; Parts 9 and 10 (pp. 385–486), 1841. In the case of the *Botany Beechey* the dates are obtained from those of the new genera as given in Pfeiffer's *Nomenclator;* and hence the date of Part 6, containing no new genera, is left with no clue.